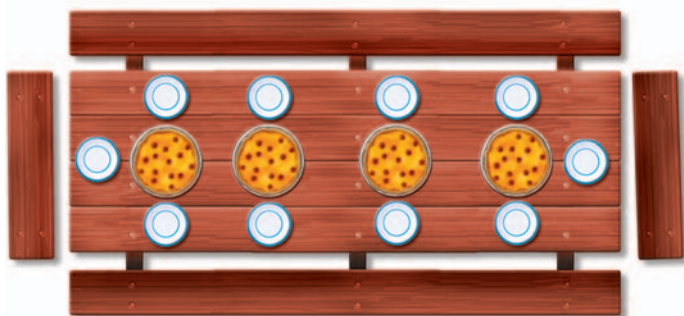


2.2

Sharing Pizza

The camp dining room has two kinds of tables. A large table seats ten people. A small table seats eight people. On pizza night, the students serving dinner put four pizzas on each large table and three pizzas on each small table.


Problem 2.2 More Comparison Strategies

- A. Suppose the pizzas are shared equally by everyone at the table. Does a person sitting at a small table get the same amount as a person sitting at a large table? Explain your reasoning.
- B. Which table relates to $\frac{3}{8}$? What do the 3 and the 8 mean? Is $\frac{3}{8}$ a part-to-whole comparison or a part-to-part comparison?
- C. Selena thinks she can decide at which table a person gets the most pizza. She uses the following reasoning:
 $10 - 4 = 6$ and $8 - 3 = 5$ so the large table is better.
 1. What does the 6 mean and what does the 5 mean in Selena's method of reasoning?
 2. Do you agree or disagree with Selena's method?
 3. Suppose you put nine pizzas on the large table. What answer does Selena's method give? Does this answer make sense?
 4. What can you now say about Selena's method?



- D. 1.** The ratio of large tables to small tables in the dining room is 8 to 5. There are exactly enough seats for the 240 campers. How many tables of each kind are there?
- 2.** What fraction of the campers sit at small tables?
- 3.** What percent of the campers sit at large tables?

ACE Homework starts on page 24.

2.3 Finding Equivalent Ratios

It is often helpful, when forming ratios, to replace the actual numbers being compared with simpler numbers that have the same relationship to each other.

- People prefer Bolda Cola over Cola Nola by a ratio of 17,139 to 11,426, or 3 to 2.
- Students prefer television to radio by a ratio of 100 to 50, or 2 to 1.
- Monthly sales of *Reader's Digest* magazine exceed those of *National Geographic* by 11,044,694 to 6,602,650, or about 3 to 2.

Getting Ready for Problem 2.3

Suppose all classes at your grade level took the cola taste test. The result was 100 to 80 in favor of Bolda Cola.

- How do you scale down this ratio to make it easier to understand?
- What are some other ratios equivalent to this ratio in which the numbers are greater? Finding greater numbers is scaling *up* the ratio.
- How is scaling ratios like finding equivalent fractions for $\frac{100}{80}$? How is it different?